

LEGISLATIVE #

160708C



PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov/>
TTY: 1-888-835-5322

DA 16-1427
December 22, 2016

COMMENT SOUGHT ON
STREAMLINING DEPLOYMENT OF SMALL CELL INFRASTRUCTURE
BY IMPROVING WIRELESS FACILITIES SITING POLICIES;
MOBILITIE, LLC PETITION FOR DECLARATORY RULING

WT Docket No. 16-421

Comment Date: February 6, 2017
Reply Comment Date: March 8, 2017

The Wireless Telecommunications Bureau (WTB) invites public input on potential Commission actions to help expedite the deployment next generation wireless infrastructure by providing guidance on how federal law applies to local government review of wireless facility siting applications and local requirements for gaining access to rights of way. This Public Notice seeks comment on ways in which the Commission could promote wireless infrastructure deployment by issuing a declaratory ruling, including but not limited to those suggested in a Petition for Declaratory Ruling filed by Mobilitie, LLC, on November 15, 2016.¹

To satisfy consumers' rapidly growing demand for wireless broadband and other services, wireless companies are actively expanding the network capacity needed to maintain and improve the quality of existing services and to support the introduction of new technologies and services. In particular, many wireless providers are deploying small cells and distributed antenna systems (DAS) to meet localized needs for coverage and increased capacity in outdoor and indoor environments.² Although the facilities used in these networks are smaller and less obtrusive than traditional cell towers and antennas, they must be deployed more densely – *i.e.*, in many more locations – to function effectively. As a result, local land-use authorities in many areas are facing substantial increases in the volume of siting

¹ See Mobilitie, LLC Petition for Declaratory Ruling, *Promoting Broadband for All Americans by Prohibiting Excessive Charges for Access to Public Rights of Way* (filed Nov. 15, 2016) (Mobilitie Petition).

² For a description of DAS and small cells, *see infra* note 16.

applications for deployment of these facilities.³ This trend in infrastructure deployment is expected to continue, and even accelerate, as wireless providers begin rolling out 5G services.⁴

This creates a dilemma. We recognize, as did Congress in enacting Sections 253 and 332 of the Communications Act,⁵ that localities play an important role in preserving local interests such as aesthetics and safety. At the same time, the Commission has a statutory mandate to facilitate the deployment of network facilities needed to deliver more robust wireless services to consumers throughout the United States.⁶ It is our responsibility to ensure that this deployment of network facilities does not become subject to delay caused by unnecessarily time-consuming and costly siting review processes that may be in conflict with the Communications Act.

The Commission has regulatory tools to help resolve this dilemma. Sections 253 and 332(c)(7) of the Communications Act⁷ and Section 6409(a) of the Spectrum Act⁸ are designed, among other purposes, to remove barriers to deployment of wireless network facilities by hastening the review and approval of siting applications by local land-use authorities. The Commission has exercised its authority to interpret and implement these provisions by, among other things, clarifying the maximum presumptively reasonable time frames for review of siting applications and the criteria local governments may apply in deciding whether to approve them.⁹ The Commission now has an opportunity to build on these actions by issuing a new declaratory ruling to further expedite the deployment of new network infrastructure that can give consumers across the country access to superior wireless services.

We are issuing this public notice to develop a factual record that will help us assess whether and to what extent the process of local land-use authorities' review of siting applications is hindering, or is likely to hinder, the deployment of wireless infrastructure. In turn, such a data-driven evaluation will make it possible to reach well-supported decisions on which further Commission actions, if any, would most effectively address any problem, while preserving local authorities' ability to protect interests within their purview. In the first section of this Public Notice, we summarize information gathered from public sources regarding new and emerging wireless technologies and services, and we discuss the progress of

³ For instance, Montgomery County, Maryland has approximately 200 pending applications, and “has had more applications filed in the past four months than in the past 18 years.” See Montgomery County Council, Most Frequently Asked Questions about Cell Towers and County’s Authority to Regulate (Oct. 25, 2016), <http://www.montgomerycountymd.gov/COUNCIL/Resources/Files/FAQsCell%20AntennasFinalapprovedbyTedi10-25-16.pdf>.

⁴ 5G refers to the 5th generation of wireless technologies; requirements for these technologies are projected to be set by standards bodies by early 2017 with specifications to follow by 2020. See Phillip Tracy, 5G Standards Process: ITU and 3GPP Lay Groundwork, (Jul. 19, 2016), <http://www.rcrwireless.com/20160719/internet-of-things/5g-standards-process-tag31-tag99>.

⁵ 47 U.S.C. §§ 253, 332(c)(7).

⁶ 47 U.S.C. § 151.

⁷ See Telecommunications Act of 1996, Pub. L. 104-104, §§ 101, 704 (codified at 47 U.S.C. §§ 253, 332(c)(7)).

⁸ See Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act), Pub. L. No. 112-96, 126 Stat. 156, § 6409(a) (2012) (codified at 47 U.S.C. § 1455(a)).

⁹ In particular, see *Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7) to Ensure Timely Siting Review*, Declaratory Ruling, 24 FCC Rcd 13994, 14020, para. 67 (2009) (*2009 Declaratory Ruling*), *aff’d*, *City of Arlington v. FCC*, 668 F.3d 229 (5th Cir. 2012), *aff’d*, 133 S. Ct. 1863 (2013); *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, Report and Order, 29 FCC Rcd 12865, 12866-69, 12878-81, paras. 2-8, 29-34 (2014) (*2014 Infrastructure Order*), erratum, 30 FCC Rcd 31 (2015), *aff’d*, *Montgomery County v. FCC*, 811 F.3d 121 (4th Cir. 2015).

deploying infrastructure needed to supply such services and satisfy consumer demand. We invite commenters to provide updated, corrected, or more detailed information on these issues. In the following sections, we discuss the applicable legal framework, including federal statutes, Commission rulings, and court decisions, as well as relevant state and local enactments and land-use authorities' decision-making on siting applications. We then discuss specific statutory interpretations on which we invite comment. We also generally seek comment on issues raised in Mobilite's Petition for Declaratory Ruling.

I. TECHNOLOGICAL AND LEGAL DEVELOPMENTS AFFECTING WIRELESS INFRASTRUCTURE DEPLOYMENT

A. Technological Developments

Current generation 3G and 4G services have fueled mobile wireless data consumption via smartphones, tablets and mobile-enabled PCs to the tune of 1.8 Exabytes¹⁰ per month in 2016 in North America alone, and this consumption is expected to grow six fold by 2022, according to a report by Ericsson.¹¹ It also estimates that, on a per smartphone basis, mobile data traffic is expected to increase from 5.1 Gigabytes per month in 2016 to 25 Gigabytes by 2022.¹² This demand for mobile wireless data is expected to continue to grow even more with the proliferation of the Internet of Things (IoT), with an expected 400 million IoT devices connected to cellular networks by the end of 2016 and projected to grow to 1.5 billion devices by 2022,¹³ made possible by advances in 4G services and next generation 5G services. While we cannot be sure exactly what 5G will bring, next generation services have the potential to revolutionize the mobile wireless experience by making the IoT widely available through the connection of billions of smart devices to the Internet. The ubiquitous connection of smart digital devices, particularly machine-to-machine connections such as sensors, wireless utility meters, industrial systems, home automation devices and appliances, connected cars, consumer electronics, and smart medical devices,¹⁴ is expected to enable smart-city energy grids, safer transportation networks (including automated driving and in-vehicle services), mobile health care (devices that monitor human health and wellness), smart homes (with enhanced security and automation of household chores), smart factories (optimizing equipment and operations), and immersive entertainment (greatly enhanced resolution and virtual reality).

The Commission has repeatedly recognized the extraordinarily promising benefits of such 5G services and has acknowledged the need for deployment of small wireless facilities,¹⁵ such as small cells

¹⁰ An Exabyte equals one billion Gigabytes.

¹¹ Ericsson, Ericsson Mobility Report at 13 (Nov. 2016), <https://www.ericsson.com/assets/local/mobility-report/documents/2016/ericsson-mobility-report-november-2016.pdf>.

¹² *Id.* at 12.

¹³ *Id.* at 33.

¹⁴ *See, e.g.*, Joint Venture Publications, Bridging the Gap: 21st Century Wireless Telecommunications Handbook at 8 (Sept. 2016), <http://www.jointventure.org/publications/joint-venture-publications/1473-bridging-the-gap-21st-century-wireless-telecommunications-handbook> (Bridging the Gap Report).

¹⁵ *See, e.g.*, 2014 Infrastructure Order, 30 FCC Rcd at 12867-70, 12878-81, paras. 2-10, 29-34; *Use of Spectrum Bands Above 24 GHz for Mobile Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8020, para 7 (2016) (*Spectrum Frontiers Order*); *Applications of XO Holdings and Verizon Communications Inc. For Consent to Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, WC Docket No. 2016, DA 16-1281, ¶¶ 57-58 (WCB, IB, and WTB, rel. Nov. 16, 2016).

and DAS,¹⁶ to enable providers to deliver those services to consumers. In order to improve spectrum efficiency, future 4G and 5G services will require significant densification of small wireless facilities, including DAS and small cells, so that these facilities, which serve smaller geographic areas, can be located close to end users to provide higher quality connections with higher bandwidth and lower latency.¹⁷ For instance, in its recent order adopting service rules for four spectrum bands above 24 GHz in preparation for the transition to 5G services, the Commission acknowledged that these high spectrum bands “do not propagate well over long distances.”¹⁸ Thus small wireless facilities are the kinds of technologies the Commission envisions needing to enable the 5G network in those bands.¹⁹ Because these cells are significantly smaller in coverage area than traditional macrocells, networks that incorporate such technologies can more intensely reuse scarce wireless frequencies, thus greatly increasing spectral efficiency and data capacity within the network footprint.²⁰ For example, deploying ten small cells in a coverage area that could be served by a single macrocell could result in a tenfold increase in capacity while using the same quantity of spectrum.²¹ Such speed and capacity would require the construction and strategic placement of a large number of small cells, frequently placed close together to ensure each cell is shared by a small number of users.

To meet the growing demand, the wireless industry is currently deploying and planning for additional construction of a large number of small cells, and the number of these facilities is expected to grow rapidly over the next decade.²² S&P Global Market Intelligence estimates that between 100,000 and

¹⁶ Small cells are low-powered wireless base stations that function like traditional cell sites in a mobile wireless network but, typically, cover targeted indoor or localized outdoor areas ranging in size from homes and offices to stadiums, shopping malls, hospitals, and metropolitan outdoor spaces. DAS networks use numerous antennas (DAS nodes), similar in size to small cells that are connected to and controlled by a central hub. Antennas and associated equipment deployed at each small cell site or DAS node are physically much smaller than those at a macrocell site and do not require the same elevation; therefore, they can be placed on light stanchions, utility poles, building walls and rooftops, and other small structures either on private property or in the public rights of way without creating the visual and physical impacts of macrocell towers. Illustrative examples of such small facility deployments may be viewed at <https://www.fcc.gov/file/3813/download>. Typically, the vast majority of outdoor DAS networks and most indoor DAS systems deployed in large structures involve ten, fifty, or even more DAS nodes. Outdoor DAS networks cover areas ranging from several blocks, to whole neighborhoods, to entire cities. See Patrick Lau, How do DAS and small cells compare?, (Sept. 21, 2015), <http://telecoms.com/opinion/how-do-das-and-small-cells-compare/>; Small Cell Forum, Small cell definition, <http://www.smallcellforum.org/about/about-small-cells/small-cell-definition/>; HetNet Forum, Distributed Antenna Systems (DAS) and Small Cell Technologies Distinguished (Feb. 2013), <http://www.hetnetforum.com/resources/send/2-resources/24-das-and-small-cell-technologies-distinguished>.

¹⁷ Bridging the Gap Report at 14-15; Ixia, Small Cells, Big Challenge: A Definitive Guide to Designing and Deploying HetNets at 41 (Nov. 2013), <https://www.ixiacom.com/resources/small-cells-big-challenge>. The coverage of small cells varies between 10 meters to several hundreds of meters, as opposed to the tens of kilometers served by macrocells. Each DAS node services a smaller geographic area with better capacity and signal strength than would be possible with a single, larger macrocell antenna.

¹⁸ *Spectrum Frontiers Order*, 31 FCC Rcd at 8028, para. 33 (citing *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, Notice of Proposed Rulemaking, 30 FCC Rcd 11878, 11912, para. 111 (2015)).

¹⁹ *Spectrum Frontiers Order*, 31 FCC Rcd at 8020, para 7.

²⁰ See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3350-3650 MHz Band*, Notice of Proposed Rulemaking and Order, 27 FCC Rcd 15594, 15596, para. 4 (2012).

²¹ *Id.*

²² See Kelly Hill, 6 predictions for the small cell market, (Feb. 27, 2016), <http://www.rerwireless.com/20160227/featured/6-predictions-for-the-small-cell-market-tag6-tag99>.

150,000 small cells will be constructed by the end of 2018, and that small cell deployments are expected to reach 455,000 by 2020 and nearly 800,000 by 2026.²³ AT&T has reported that the substantial majority of its infrastructure deployments over the next five years will be small cell sites.²⁴ In addition, Verizon is deploying small cells in several urban areas, including New York, Chicago, Atlanta, and San Francisco.²⁵ Sprint announced last year a goal of deploying 70,000 small cells within two years.²⁶

B. Federal Statutory and Regulatory Framework

The successful deployment of wireless networks depends in large part on how quickly providers are able to obtain the necessary regulatory approvals.²⁷ As noted above, Congress enacted Sections 253 and 332 of the Communications Act, as well as Section 6409 of the Spectrum Act, *inter alia*, in order to address concerns about state and local governments' unduly restrictive zoning rules and unfounded denials or delays in the processing of permit applications for constructing wireless facilities.²⁸ These statutory provisions explicitly preserve state and local governments' authority to control the "placement, construction, and modification of personal wireless service facilities"²⁹ and to manage "use of public rights-of-way,"³⁰ but they prohibit state and local governments from using certain unreasonable criteria in making such decisions.

Both Sections 253 and 332 prohibit state and local government actions that "prohibit or have the effect of prohibiting" any entity's ability to provide personal wireless service or any other telecommunications service or that "unreasonably discriminate among providers of functionally equivalent services."³¹ Section 253 expressly provides that state or local governments may require telecommunications providers to pay "compensation" for the use of public rights-of-way, but specifies that the amounts of such compensation must be "fair and reasonable," "competitively neutral and nondiscriminatory," and "publicly disclosed."³² Section 253 also authorizes the Commission to issue orders that "preempt the enforcement" of state or local statutes, regulations, or legal requirements that preclude any entity from providing telecommunications service.³³ In addition, many courts, relying on

²³ S&P Global Market Intelligence, John Fletcher, Small Cell and Tower Projections through 2026, SNL Kagan Wireless Investor (Sept. 27, 2016).

²⁴ See Ken Schmidt, AT&T Forecasts 6,700 New Macrocells from 2017-2022, (Jun. 9, 2016), <http://www.steelintheair.com/Blog/2016/06/att-forecasts-6700-new-macrocells-from-2017-2022.html>.

²⁵ See Phillip Tracy, Small cells: Backhaul difficulties and a 5G future, (Jul. 11, 2016), <http://www.rerwireless.com/20160711/network-infrastructure/small-cells-tag31-tag99>.

²⁶ See Martha DeGrasse, Carrier small cells appear slowly but surely, (May 24, 2016), <http://www.rerwireless.com/20160524/carriers/carrier-small-cells-tag4>.

²⁷ See *e.g.*, Ben Munson, Small Cell Deployment Estimates 'Radically off' the Mark, Analyst Says, Fierce Telecom (Jul. 13, 2016).

²⁸ See *T-Mobile South, LLC v. City of Roswell*, 130 S. Ct. 808, 815 (2015) (in enacting Section 332(c)(7), "Congress intended to place specific limitations on the traditional authority of state and local governments regarding cell phone tower siting applications"); *City of Rancho Palos Verdes v. Abrams*, 544 U.S. 113, 115-16 (2005) (same).

²⁹ 47 U.S.C. §332(c)(7)(A).

³⁰ 47 U.S.C. § 253(c).

³¹ *Id.*, §§ 253(a), 332(c)(7)(B)(i)(II).

³² *Id.*, § 253(c).

³³ *Id.*, § 253(d). The Commission has issued numerous preemption orders applying Section 253 in other contexts, but has not preempted any state or local government action (or inaction) involving wireless facilities siting to date.

their authority under the Constitution’s Supremacy Clause and various jurisdictional statutes, have issued orders interpreting, and in some cases enjoining violations of, some or all provisions of Section 253.³⁴

Section 332 requires state and local land-use authorities to act on requests for authority to place, construct, or modify personal wireless service facilities within a reasonable period of time after such requests are filed.³⁵ Section 332 also provides that state and local governments may not deny wireless facilities siting applications “on the basis of the environmental effects of radio frequency emissions,” a matter over which the Commission has exclusive jurisdiction.³⁶ Pursuant to Section 332(c)(7)(B)(v), a person adversely affected by a state or local government agency’s “final action” or “failure to act” on a personal wireless service facilities siting application “within a reasonable period of time after the request is duly filed” may sue such an agency “in any court of competent jurisdiction.”³⁷ The Supreme Court has made clear, however, that courts may order only injunctive relief, not monetary remedies, in such actions.³⁸

Section 6409(a) establishes that state and local governments “may not deny, and shall approve,” any “request for a modification of an existing wireless tower or base station that does not substantially change the [facility’s] physical dimensions.”³⁹ It specifies that applications for authorization to collocate new transmission equipment or to remove or replace existing equipment qualify for such treatment.⁴⁰ Section 6409(a) does not specify an enforcement mechanism.

The Commission’s *2009 Declaratory Ruling* and *2014 Infrastructure Order*⁴¹ resolved a number of controversies by adopting definitive interpretations of ambiguous provisions in Section 332(c)(7) and Section 6409(a) and interpreting how their substantive and procedural requirements should be applied. On judicial review of the *2009 Declaratory Ruling*, the Fifth Circuit⁴² and the Supreme Court confirmed

In the *2009 Declaratory Ruling*, the Commission made clear that it would consider Section 253 preemption requests only “within the factual context of specific cases” based on “sufficient information or evidence of a specific controversy on which to base such action or ruling.” 24 FCC Rcd at 14020, para. 67. The courts, however, have established a substantial body of case law applying Section 253. *See infra* note 34.

³⁴ *See* U.S. Const. art. VI; 28 U.S.C. §§ 1331, 1367. *See also* *TCG New York v. City of White Plains*, 305 F.3d 67, 73-76 (2d Cir. 2002); *TCG Detroit v. City of Dearborn*, 206 F.3d 618, 622-24 (6th Cir. 2000); *City of Auburn v. Qwest Corp.*, 260 F.3d 1160, 1172, 1175 (9th Cir. 2001), *abrogated on other grounds*, *Sprint Telephony PCS L.P. v. County of San Diego*, 543 F.3d 571 (9th Cir. 2008) (*en banc*); *BellSouth Telecomm’s, Inc. v. Town of Palm Beach*, 252 F.3d 1169, 1189 (11th Cir. 2001). *But see* *Qwest Corp. v. City of Santa Fe*, 380 F.3d 1258, 1265-67 (10th Cir. 2004) (Section 253 creates no private right of action).

³⁵ *Id.*, § 332(c)(7)(B)(ii).

³⁶ *Id.*, § 332(c)(7)(B)(iv).

³⁷ *Id.*, § 332(c)(7)(B)(v). To facilitate such review, state or local authorities’ decisions must be “in writing and supported by substantial evidence contained in a written record.” *Id.* § 332(c)(7)(B)(iii). A claim that a state or local action was impermissibly based on the environmental effects of radio frequency emissions may alternatively be brought before the Commission for relief. *Id.* § 332(c)(7)(B)(v).

³⁸ *City of Rancho Palos Verdes*, 544 U.S. at 121.

³⁹ 47 U.S.C. § 1455(a)(1).

⁴⁰ *Id.*, § 1455(a)(2)(A), (B), and (C).

⁴¹ *Supra* note 9. The specific issues addressed in those orders are discussed below.

⁴² *City of Arlington v. FCC*, 668 F.3d at 247-54.

that the Commission has authority to render such binding statutory interpretations and that courts must accord them *Chevron* deference.⁴³

C. Local Governments' Review of Siting Applications

Notwithstanding the federal statutes and Commission decisions described above, some industry participants assert that local permitting and zoning processing for both new tower and small cell builds continue to encounter frequent delays. According to some firms, it frequently takes two years or more from small cell site acquisition to completion.⁴⁴ Many municipalities reportedly review small cells the same way they review macrocells because they have either a telecommunications siting process designed for macrocells or no special process for telecommunications facilities.⁴⁵ As a result, applicants are frequently required to contend with a long and costly process.⁴⁶

Wireless industry representatives report that some localities impose high initial fees and excessive recurring charges for the deployment of infrastructure on public rights of way.⁴⁷ According to Mobilitie, many localities request “multiple, exorbitant fees that unlawfully discriminate against wireless technology and impair new or improved service.”⁴⁸ Mobilitie asserts that many local governments impose fees that “appear to be set to recover what localities believe the ‘market’ rate is for the use of their rights of way,”⁴⁹ rather than to recover “fair and reasonable compensation” for localities’ expenses.⁵⁰ Mobilitie states that the impact of these fees is “compounded because they are recurring [and] must be paid to the locality every year, meaning that over time they can far exceed all other deployment costs.”⁵¹ Mobilitie also

⁴³ *City of Arlington v. FCC*, 133 S. Ct. at 1863; see *Chevron USA, Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984). The Fifth Circuit also ruled that the Commission’s issuance of such statutory interpretations in a declaratory ruling, after according parties notice and an opportunity to comment, was not improper, 668 F.3d at 239-47, and, on the merits, affirmed the reasonableness of the Commission’s interpretations. *Id.* at 255-61. The Supreme Court did not address the latter issues. See also 47 C.F.R. § 1.2; *National Cable & Telecomm. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 985 (2005) (FCC’s interpretation of an ambiguous provision of the Communications Act overrides earlier court decisions interpreting the same provision).

⁴⁴ See e.g., Colin Gibbs, Small Cells: Still Plenty of Potential despite Big Challenges, (Sept. 1, 2016) <http://www.fiercewireless.com/wireless/small-cells-still-plenty-potential-despite-big-challenges>.

⁴⁵ See e.g., Sean Maddox and Daniel Shaughnessy, Regulatory Challenges with Small Cells, (Jun. 23, 2016) <http://www.md7.com/2016/06/the-challenges-in-developing-regulatory-framework-to-accelerate-small-cell-deployments/>.

⁴⁶ See e.g., Small Cell Forum, Small Cell Siting: Streamlining Administrative Processes and Procedures at 7, (Oct. 2016) http://scf.io/en/documents/190_-_Small_cell_siting_Streamlining_administrative_processes_and_procedures.php.

⁴⁷ See e.g., Letter from D. Zachary Champ, Director, Governmental Affairs, PCIA - The Wireless Infrastructure Association to Intergovernmental Advisory Committee, Federal Communications Commission at 6-7 (filed May 6, 2016).

⁴⁸ Mobilitie Petition at 14.

⁴⁹ *Id.* at 16.

⁵⁰ Note, however, that there is judicial precedent for considering the totality of the circumstances, including market-based pricing for comparable use of rights-of-way, in determining whether the compensation charged by a locality constitutes, in the words of 47 U.S.C. § 253(c), “fair and reasonable compensation . . . for use of public rights-of-way.” See, e.g., *TCG Detroit v. City of Dearborn*, 206 F.3d 618, 624-25 (6th Cir. 2000); *Qwest Corp. v. City of Santa Fe*, 380 F.3d 1258, 1272-3 (10th Cir. 2004).

⁵¹ *Id.* at 17.

submits that many localities require providers to pay fees based on a percentage of their annual gross revenues, including fees as high as six to seven percent of revenues in some localities in Oregon and Washington and five percent in certain jurisdictions in California, Massachusetts, New York and other parts of Oregon.⁵² In addition, we have heard anecdotally that some local governments allow only a single company to attach facilities to a particular pole or structure, and that some require unreasonable minimum distance limitations between wireless facilities in rights-of-way.

On the other hand, some local governments have guidelines designed to facilitate small cell deployments by clearly specifying approval timelines for such applications and identifying preferred site locations. In particular, a number of local governments have amended their zoning and telecommunications ordinances to expedite their decisions on small cell siting requests, and in some cases have created a separate, less burdensome administrative process for requests to add small cells to existing structures like poles or water towers. Cities also have developed master agreements for access to public rights of way in order to expedite attachment of small wireless facilities to city-owned infrastructure.⁵³ For instance, New York City has established Mobile Telecommunications Franchise Agreements that allow companies to “install and operate telecom equipment on street light poles, traffic light poles, and utility poles to facilitate wireless communications in the five boroughs.”⁵⁴ These agreements feature a relatively low fee structure and streamlined processes for review of small wireless facility siting applications. In Baltimore, the City Council approved similar franchise agreements to enable companies to build DAS in public rights of way.⁵⁵ Boston also has entered numerous non-exclusive agreements with providers for small cell installation across city-controlled rights of way.⁵⁶

II. DISCUSSION

A. *Determining How Local Land-Use Regulations or Actions Affect Wireless Infrastructure Deployment*

The Commission relied on a substantial body of factual evidence as the basis for taking action in the *2009 Declaratory Ruling* and the *2014 Infrastructure Order*.⁵⁷ We invite commenters to submit

⁵² *Id.* at 18.

⁵³ Wireless Infrastructure Association, *Unleashing the Economic Benefits of Mobile Broadband Expansion* at 10 (Oct. 26, 2016), http://wia.org/wp-content/uploads/WIA_UnleashingEconomicBenefits_2016.pdf.

⁵⁴ The New York City Department of Information Technology & Telecommunications, *Mobile Telecom Franchises*, <http://www1.nyc.gov/site/doitt/business/mobile-telecom-franchises.page> (last visited Dec. 22, 2016).

⁵⁵ *See, e.g.*, Baltimore City Council, *Franchise - Extenet Systems, Inc.* (Aug. 17, 2015), <https://baltimore.legistar.com/LegislationDetail.aspx?ID=2266530&GUID=80896099-02BD-44B0-8416-4F50971742D5&Options=ID%7CText%7C&Search=0528/>; Baltimore City Council, *Franchise – Crown Castle NG Atlantic LLC*, (Nov. 6, 2015), <https://baltimore.legistar.com/LegislationDetail.aspx?ID=2383059&GUID=85B0666B-129D-40CA-9119-F39D235224DF&Options=&Search>.

⁵⁶ City of Boston, *Licensed Wireless Providers in Boston*, <https://www.boston.gov/departments/cable-and-broadband/licensed-wireless-providers-boston> (last visited Dec. 22, 2016).

⁵⁷ *See, e.g.*, *2009 Declaratory Ruling*, 24 FCC Rcd at 14005-06, paras. 33-34 (citing evidence that, as of mid-2008, over 20 percent of the siting applications then pending before local jurisdictions had been awaiting action for over a year and about four percent had been pending for more than three years); *2014 Infrastructure Order*, 29 FCC Rcd at 12869-70, paras. 8-10 (observing that providers were continuing to encounter delays and undue costs, even for deployments that did not present significant concerns, due in part to the cumbersome and time-consuming processes

updated information that would help us evaluate whether further Commission action is warranted.⁵⁸ Do the concerns that motivated the Commission to take action in 2009 and 2014 still exist? Have they become less or more salient? Which, if any, local government actions (or inaction) have the effect of hindering the introduction of new services, obstructing efforts to improve existing services or make networks more robust, or deterring prospective service providers from entering markets? Commenters should provide specific information and detailed explanations and, to the extent possible, should quantify any such effects. We will accord greater weight to systematic data than merely anecdotal evidence.

At present, how much time typically elapses between the filing of complete facility siting applications and the approval or denial of such applications by local land-use authorities? We seek information from providers and local governmental authorities on the process for reviewing and making decisions on siting applications for small wireless facilities (including DAS and small cells), particularly the amount of time it takes to complete this process. In this regard, we request that commenters explain the extent to which siting review procedures for small wireless facilities are the same as those in place for macrocells. How long does it typically take local governments to process macrocell siting applications and how does this compare to the review of small wireless facilities or DAS applications? Are there greater coverage gaps in specific states or localities where applications are processed more slowly or where more stringent showings are required? If so, to what extent are these gaps attributable to such factors regarding the processing and consideration of siting applications?

We also seek comment on how often local land-use authorities approve or deny siting applications. How often are applications denied on the basis of (i) their inadequacy or incompleteness; (ii) engineering defects or other technical problems; (iii) environmental impacts; (iv) aesthetic concerns; (v) perceptions of excessive or overly dense deployment of wireless network facilities in particular areas; or (vi) other reasons? Are some parties' applications granted more frequently or reviewed more expeditiously than others, and if so, why? We seek comment on the extent to which litigation ensues as a result of delay or denial of siting applications. Do litigants invoke Sections 253 or 332 of the Communications Act, Section 6409(a) of the Spectrum Act, or other sources of law in support of their positions? How long does it take for such lawsuits to be resolved? How often are cases settled and how often do they proceed to final judgment?

We refer to a small sample of legislation, ordinances, and regulations proposed or adopted by state and local governments in Section I.C above. We invite parties to submit other examples and explain which of these have been most successful in reducing or restraining administrative burdens, costs and delay, whether such approaches could be employed more generally, and whether they should serve as models for other states or localities to follow. Commenters also should identify legislation, ordinances and regulations that impose legal requirements that parties view as problematic. To what extent do they unduly restrict (i) locations where facilities may be deployed; (ii) the technical configurations of network facilities; or (iii) access to rights-of-way owned or controlled by state and local governments? Do they

of obtaining siting approvals from local land-use authorities and the environmental and historic preservation review processes).

⁵⁸ Cf. *Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting*, Notice of Inquiry, 26 FCC Rcd 5384, 5389-95, paras. 12-33 (2011) (identifying and seeking information about "broad categories" of issues including "(1) timeliness and ease of the permitting process; (2) the reasonableness of charges; (3) the extent to which ordinances or statutes have been updated to reflect current communications technologies or innovative deployment practices; (4) consistent or discriminatory/differential treatment; (5) presence or absence of uniformity due to inconsistent or varying practices and rates in different jurisdictions or areas; [and] (6) other rights of way concerns including 'third tier' regulation or requirements that cover matters not directly related to rights of way use or wireless facilities siting.").

promote or thwart deployment of small cell or DAS facilities or other types of network infrastructure? To the extent they tend to thwart such deployment, is there any legitimate justification for maintaining these requirements in their current form? As discussed in greater detail in Section II.B.3 below, we also seek comment on the types of fees that local governments currently impose on providers for building facilities in rights of way, including both up-front fees for processing applications and recurring usage charges.

B. Potential Issues to Address in Declaratory Ruling

We seek comment on whether the Commission should take additional steps, by interpreting relevant statutory provisions, to help promote deployment of needed wireless infrastructure while protecting localities' legitimate interests. In the *2014 Infrastructure Order*, the Commission clarified certain issues related to the interpretation of Section 332(c)(7) that it had not addressed in the *2009 Declaratory Ruling*, but declined to revisit any aspect of that earlier ruling. We now solicit comments on whether the Commission should issue a declaratory ruling to further clarify any issues addressed in its 2009 and 2014 rulings or to fine-tune or modify any of its past statutory interpretations in light of current circumstances.

1. Local Governments' Practices that "Prohibit or Have the Effect of Prohibiting" Provision of Service

As discussed above, Sections 253(a) and 332(c)(7) establish that "[n]o State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity" to provide personal wireless services or other telecommunications services.⁵⁹ The Commission has held that those statutory provisions "proscribe[] State and local legal requirements that prohibit all but one entity from providing telecommunications services in a particular State or locality," and that state or local government decisions to deny a siting application on the basis that one or more carriers other than the applicant already provides wireless service in the geographic area should be construed to "prohibit or have the effect of prohibiting" the provision of service.⁶⁰ More generally, the Commission has framed the question of whether a locality's actions have the effect of prohibiting the provision of service in terms of whether the action "materially inhibits or limits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment."⁶¹

Aside from that basic interpretation, however, the Commission has not addressed in detail the meaning of the statutory phrase "prohibit or have the effect of prohibiting" or the demonstration needed to establish that a state or local government's actions have prohibited or had the effect of prohibiting the provision of service for purposes of either Section 253 or 332. Numerous courts have construed the section, however. Courts generally agree that a carrier may establish that a land-use authority's denial of its siting application "prohibits or has the effect of prohibiting" the provision of service by showing that it has a significant gap in service coverage in the area and a lack of feasible alternative locations for siting facilities, but they disagree about the showings needed to satisfy this standard. The First, Fourth, and Seventh Circuits have imposed a "heavy burden" of proof to establish a lack of alternative feasible sites, requiring the applicant to show "not just that *this* application has been rejected but that further reasonable

⁵⁹ 47 U.S.C. § 253(a); *cf. id.* § 332(c)(7)(B)(ii).

⁶⁰ *Classic Telephone, Inc.*, Memorandum Opinion and Order, 11 FCC Rcd 13082, 13095, para. 25 (1996); *2009 Declaratory Ruling*, 24 FCC Rcd at 14016-19, paras. 56-65.

⁶¹ *California Payphone Association Petition for Preemption*, 12 FCC Rcd 14191, 14206, para. 31 (1997).

efforts to find another solution are so likely to be fruitless that it is a waste of time even to try.”⁶² By contrast, the Second, Third, and Ninth Circuits have held that an applicant must show only that its proposed facilities are the “least intrusive means” for filling a coverage gap in light of the aesthetic or other values that the local authority seeks to serve.⁶³ The Ninth Circuit has ruled that once an applicant makes a prima facie showing that its proposal is least intrusive, the burden shifts to the locality to rebut that showing by demonstrating a “potentially available and technically feasible alternative.”⁶⁴

Should the Commission, as the expert agency, attempt to reconcile or otherwise resolve these or other differences of interpretation among the courts, and if so, how? For instance, does an action that prevents a technology upgrade “have the effect of prohibiting” the provision of service? Should the Commission address other disputed issues regarding the meaning of the phrase “prohibits or has the effect of prohibiting”?

2. Reasonable Period of Time for Review of Siting Applications

In the *2009 Declaratory Ruling*, the Commission found that a “reasonable period of time” under Section 332(c)(7)(B)(ii) is presumptively 90 days for state or local governments to process collocation applications and presumptively 150 days to process all other applications.⁶⁵ If a state or local government does not act upon an application within the relevant timeframe, then a “failure to act” has occurred and the provider may seek relief in a court of competent jurisdiction under Section 332(c)(7)(B)(v). In the *2014 Infrastructure Order*, the Commission further clarified that these presumptively reasonable timeframes (or “shot clocks”) apply regardless of state or local governments’ purported moratoria on processing siting applications, and that the same shot clocks apply to DAS and small-cell applications.⁶⁶

The presumptive timeframes established in the *2009 Declaratory Ruling* may be longer than necessary and reasonable to review a small cell siting request. On the other hand, if small cell siting applications are filed dozens at a time, those presumptive timeframes may not be long enough. We therefore seek comment on whether different presumptive timeframes are “reasonable” in the small cell context. We also seek comment on whether the timeframes should vary depending on whether a state or local government receives siting requests proposing one small cell deployment at a time or consolidated

⁶² *Green Mountain Realty Corp. v. Leonard*, 750 F.3d 30, 40 (1st Cir. 2014); *accord New Cingular Wireless PCS, LLC v. Fairfax County*, 674 F.3d 270, 277 (4th Cir. 2012); *T-Mobile Northeast LLC v. Fairfax County*, 672 F.3d 259, 266-68 (4th Cir. 2012) (*en banc*); *Helcher v. Dearborn County*, 595 F.3d 710, 723 (7th Cir. 2010).

⁶³ *Sprint Spectrum, LP v. Willoth*, 176 F.3d 630, 643 (2d Cir. 1999); *APT Pittsburgh Ltd. P’ship v. Penn Township*, 196 F.3d 469, 480 (3d Cir. 1999); *American Tower Corp. v. City of San Diego*, 763 F.3d 1035, 1056-57 (9th Cir. 2014); *T-Mobile USA, Inc. v. City of Anacortes*, 572 F.3d 987, 995-99 (9th Cir. 2009).

⁶⁴ *American Tower Corp. v. City of San Diego*, 763 F.3d at 1056-57; *T-Mobile USA, Inc. v. City of Anacortes*, 572 F.3d at 995-99.

⁶⁵ *2009 Declaratory Ruling*, 24 FCC Rcd at 14012, para. 45.

⁶⁶ *2014 Infrastructure Order*, 29 FCC Rcd at 12971-72, 12973-24, paras. 265-66, 270-72. The Commission’s *2014 Infrastructure Order* also clarified the meaning of “may not deny, and shall approve” in Section 6409(a)(1) – a term that does not appear in Sections 253 or 332. The Commission ruled that state or local government agencies may review applications for up to 60 days after such applications are filed to determine whether they qualify as “eligible facilities requests” under the criteria specified in Section 6409(a)(2), but if an agency fails to rule on an application within that time frame, the application is deemed granted. *Id.* at 12955-58, paras. 211-221. Local governments may challenge claims that siting applications have been deemed granted, and applicants may challenge local governments’ denials of their applications, by bringing suit within 30 days of the relevant event. *Id.* at 12961-64, paras. 226-36. The *2014 Infrastructure Order* also made clear which types of applications qualify for the “deemed granted” remedy by adopting specific interpretations of statutory terms such as “transmission equipment,” “tower,” and “base station.” *Id.* at 12926-51, paras. 145-204; *see also* 47 C.F.R. § 1.40001 (codifying these determinations).

applications that request authority for a single provider to deploy multiple small cells (*i.e.*, a “batch” of small cell siting proposals).

We seek comment on whether the presumptive deadlines adopted in the *2009 Declaratory Ruling* reflect an approach more appropriate for traditional macrocells than for the types of cells discussed here, which are much smaller and can be placed on light poles, utility poles, buildings, and other structures either on private property or in the public rights of way. Due to their size and placement, small cells may have less potential for aesthetic and other impacts than macrocells. We therefore seek comment on whether our interpretation of a “reasonable period of time” under Section 332(c)(7)(B)(ii) should be shorter for state and local governmental review of small cell facility applications. We also seek comment on how the Commission could define “small cell” for this purpose.

In addition, there may be efficiencies associated with a review process in which state and local governments would consider deployment of multiple small cells in a single consolidated application (*i.e.*, a batch of small deployment proposals from a single entity), particularly in light of their uniformity in size and appearance in many cases. A batched set of siting applications may be quicker to review than the same number of siting proposals submitted separately, but at the same time, we recognize it may take longer to review an application consisting of large numbers of cell siting proposals submitted at one time than to review small batches or single site applications. Therefore, we seek comment on whether the presumptively reasonable timeframe should be longer when many facilities requests are submitted at once. Could we interpret the Act so as to encourage the practice of processing a “batch” of siting requests by finding longer timeframes to be reasonable if the local government accommodates batched submissions, while holding to the existing, shorter timeframe if it only accepts individual applications? For example, should the Commission consider presumptions of 120 days for processing batches of collocation applications and 180 days for processing batches of applications for deployments other than collocations? If so, what should be the minimum number of sites to qualify as a “batch” for this purpose? Should there be multiple tiers depending on how many poles or antennas are involved?⁶⁷

We seek information from providers and local governmental authorities on the process for reviewing and making decisions on siting applications for small wireless facilities (including DAS and small cells), particularly the amount of time it takes for the completion of this process. In this regard, we request that commenters explain the extent to which siting review procedures for small cells are the same as have been in place for macrocells. How long does it typically take local governments to process macrocell siting applications and how does this compare to the review of small cells? We also request that commenters provide information on the extent to which “batching” is currently used by the industry and local governments for the review of small cell deployments and to explain how well that process has been working to expedite the process and provide local governments with the information they need to make decisions on siting applications.

3. Application Processing Fees and Charges for Use of Rights-of-Way

Section 253(c) provides that “[n]othing in this section affects the authority of a State or local government to manage the public rights-of-way or to require fair and reasonable compensation from telecommunications providers, on a competitively neutral and nondiscriminatory basis, for use of public rights-of-way on a nondiscriminatory basis, if the compensation required is publicly disclosed by such

⁶⁷ *Cf.* 47 C.F.R. § 1.1420(g)(1)-(5) (allowing utilities progressively greater amounts of time to respond to pole attachment requests if such requests identify, respectively, fewer than 200 poles; 200-3000 poles; and 3000 or more poles in a state).

government.”⁶⁸ The Commission did not address the meaning of this provision in its 2009 or 2014 rulings. We now seek comment on whether the public interest would be served by issuing clarifications of any of the terminology in Section 253(c), as Mobilitie requests in its Petition.

According to Mobilitie, the phenomenon of excessive and unfair fees for use of rights of way “is not confined to a few outlier localities – it exists nationwide. Across the country, Mobilitie is being confronted with multiple fees, often being asked to pay not only up-front fees but also annual recurring fees which escalate by mandatory amounts year after year.”⁶⁹ We invite comments on whether these assertions are well-founded. How do local governments determine the up-front fees for applications and permits or the recurring fees for usage of rights of way? Do they set up-front fees based on the costs they incur in reviewing such applications or related administrative tasks such as monitoring the provider’s construction of facilities, ensuring compliance with local building codes and excavation regulations, and verifying liability insurance? Are recurring charges set based on localities’ ongoing costs of managing use of rights of way? To what extent are localities imposing charges based on other considerations, such as percentages of gross revenues or other indicia of the value of the use of the right-of-way?

The Circuit Courts of Appeals are split on whether the fees local governments charge to a telecommunications provider to use public rights of way must be directly related to the provider’s use of the right of way and the costs that use imposes on the local government.⁷⁰ In *Puerto Rico Tel. Co., Inc. v. Municipality of Guayanilla*, the First Circuit held that the fees local governments collect from telecommunications providers must at the very least be *related* to the actual use of rights of way and that “the costs [of maintaining those rights of way] are an essential part of the equation.”⁷¹ Similarly, in *City of Auburn v. Qwest Corp.*, the Ninth Circuit found that certain city ordinances could have the “effect of prohibiting the provision of telecommunications services” where, *inter alia*, they imposed “fees... [that were] not based on the costs of maintaining the right of way, as required under the Telecom Act.”⁷²

Other circuits have sustained municipal ordinances that considered factors in addition to costs in setting fees for use of rights-of-way. In *TCG Detroit v. City of Dearborn*, the Sixth Circuit determined that a 4% gross revenue fee was fair and reasonable based on the amount of the use contemplated, the amount other providers would be willing to pay, and the impact on the profitability of the business.⁷³ But we note that in *TCG New York, Inc. v. City of White Plains*, the Second Circuit held that the city could not require the provider to pay a franchise fee equal to five percent of its gross revenue because that fee did not apply to the incumbent provider, and Section 253(c) “forbids fees that are not competitively neutral, period, without regard to the municipality’s intent.”⁷⁴

We solicit comment on whether and how the Commission should interpret Section 253(c) for the purpose of ensuring that fees imposed on providers for using rights of way do not exceed fair and reasonable compensation. Should the Commission, as the expert agency, issue a declaratory ruling addressing the issues referred to above or to address other issues that the courts have not resolved to date? In particular, we seek comment on the proposals raised in Mobilitie’s Petition. Mobilitie requests that the

⁶⁸ 47 U.S.C. §253(c).

⁶⁹ Mobilitie Petition at 15.

⁷⁰ See, e.g., *N.J. Payphone Ass’n Inc. v. Town of West York*, 299 F.3d 235, 244 (3d Cir. 2002).

⁷¹ 450 F. 3d 9, 22 (1st Cir. 2006).

⁷² 260 F.3d 1160, 1176 (9th Cir. 2001).

⁷³ 206 F.3d 618, 625 (6th Cir. 2000). See also *supra* at note 50.

⁷⁴ 305 F.3d 67, 80 (2d Cir. 2002).

Commission interpret the phrase “fair and reasonable compensation” in Section 253(c) to mean that local governments may receive compensation to recover their costs to review and issue permits, as well as to manage their rights of way, but that any additional charges are unlawful.⁷⁵ How should the statutory term “fair and reasonable compensation” be defined? What are the appropriate criteria for state and local governments to apply in establishing fair and reasonable compensation? Must up-front fees or recurring compensation for use of local governments’ rights of way be based on cost? If so, what measures of costs would be appropriate? Do the rules governing the computation of cost-based rates for pole attachments and access to private utilities’ rights of way provide useful analogs for the “reasonable compensation” that state or local governments may assess? Why or why not? What types of expenses may local authorities recover through up-front and recurring charges, respectively? We seek comment on Mobilite’s proposal that recurring charges be limited to “incremental personnel and other costs for monitoring the facilities (for example, to ensure they are maintained in compliance with signage and other requirements).”⁷⁶

Mobilite also argues that the Commission should deem fees to be “competitively neutral and non-discriminatory” within the meaning of Section 253(c) only if they “do not exceed those imposed on other providers for similar access.”⁷⁷ We also seek comment on Mobilite’s request that the Commission interpret Section 253(c)’s “competitively neutral and nondiscriminatory” provision as requiring that fees imposed on a provider for access to rights of way may not exceed the charges that were imposed on other providers for similar access to the rights of way.⁷⁸ Is this an appropriate or the best definition for the statutory phrase “competitively neutral and non-discriminatory”? If not, we seek comment on alternative definitions. What factors could properly be taken into account if the Commission were to interpret the statutory nondiscrimination requirement, as Mobilite proposes, based on “a comparison of the relevant charges and the reasons for them,” so that fees paid by different providers could vary only if “they cover dissimilar deployments, or where one deployment imposes materially greater burdens on a right of way than another.” We seek comment on the extent to which discriminatory charges imposed by local governments on providers are a widespread occurrence that needs to be addressed.

Finally, we seek comment on Mobilite’s request that the Commission address the provision in Section 253(c) that compensation for the use of rights of way be “publicly disclosed by such government.” Should the Commission adopt Mobilite’s proposal to “declare that localities must at least disclose to a carrier upon request the charges they have imposed on all carriers for access to rights of way,” including “not only the amount of the charges” but also “how they [were] calculated”?⁷⁹ We seek comment on the extent to which this information is unavailable from local governments and whether lack of information is a widespread problem.

III. PROCEDURAL MATTERS

This proceeding has been designated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.⁸⁰ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral

⁷⁵ Mobilite Petition at 24-31.

⁷⁶ *Id.* at 24.

⁷⁷ *Id.* at 31-34.

⁷⁸ *Id.* at 32.

⁷⁹ *Id.* at 35.

⁸⁰ 47 C.F.R. §§ 1.1200 *et seq.*

ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

For further information, contact: Paul D'Ari, 202-418-1550 or paul.dari@fcc.gov, or David Sieradzki, 202-418-1368 or david.sieradzki@fcc.gov, or Rachael Bender, 202-418-0563 or rachael.bender@fcc.gov.

Media contact: Cecilia Sulhoff, (202) 418-0587 or cecilia.sulhoff@fcc.gov.

Action by the Chief, Wireless Telecommunications Bureau.